1245IHSSF2232



DocumentID

NONCD0002834

Site Name

BURLINGTON INDUSTRIES

DocumentType

Other (O)

RptSegment

1

DocDate

12/3/1992

DocRcvd

2/20/2007

Вох

SF2232

AccessLevel

PUBLIC

Division

WASTE MANAGEMENT

Section

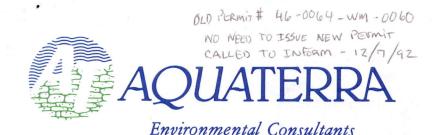
SUPERFUND

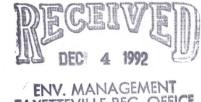
Program

IHS (IHS)

DocCat

FACILITY





EAYETTEVILLE REG. OFFICE

December 3, 1992

Ms. Cindy Hegg North Carolina Department of Environment, Health, and Natural Resources Division of Environmental Management Wachovia Building Suite 714 Fayetteville, North Carolina 28301

Reference:

Application for Permit to Construct a Monitoring Well

Burlington Industries, Inc. Raeford, North Carolina Aquaterra Job No. 467

Dear Ms. Hegg:

Aquaterra, Inc. is pleased to submit on behalf of Burlington Industries, Inc., the enclosed application for a permit to construct a monitoring well. The well is to be constructed to replace the damaged well MW-5s.

If you have any questions or comments concerning the application, please contact Ms. Sharon A. Myers at (919) 859-9987.

Sincerely,

Shoron a. Myers Sharon A. Myers Project Manager

Senior Peer Review By

David L. Duncklee, P.G. Senior Project Manager

Enclosure

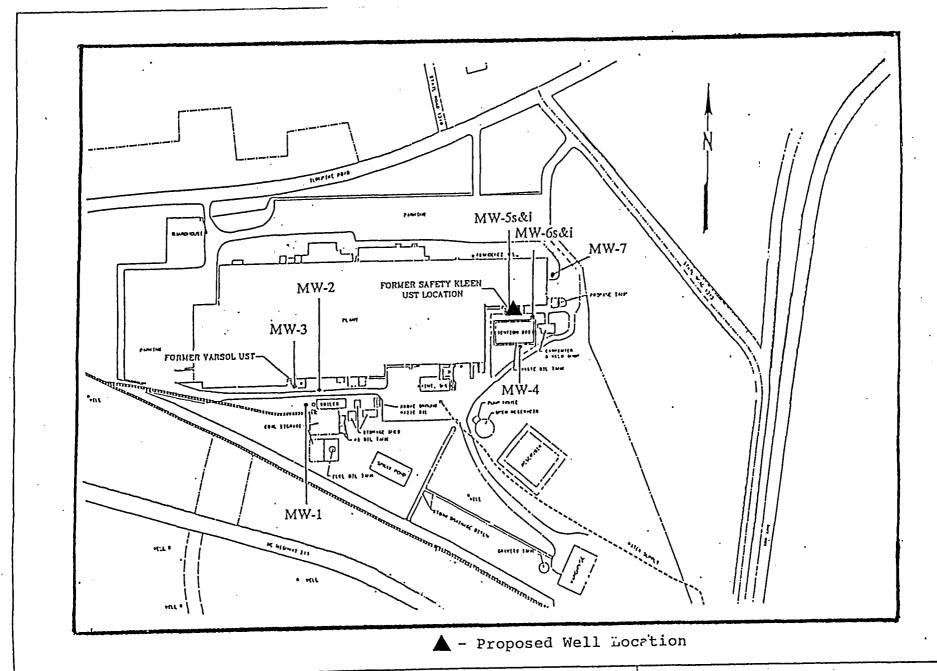
L3011-92/SAM/cbb

NORTH CAROLINA

ENVIRONMENTAL MANAGEMENT COMMISSION DEPARIMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCE APPLICATION FOR PERMIT TO CONSTRUCT A MONITORING WELL

Date: December 2 , 19 92 County Hoke	ENV. MANAGEMENT FAYETTEVILLE REG. OFFICE
In accordance with the provisions of Article 7, Chapter 87, Ger thereto, application is hereby made for a permit to monitoring v	neral Statutes of North Carolina and regulations pursuant
1. Name of Applicant Burlington Industries, Inc.	(Telephone: 804-374-8111)
Applicant's Mailing Address: P.O. Box 788, Clarksville,	Virginia 23927
2. Name of Property Owner (if different from applicant)	
	·
Owner's Mailing Address: Mike Garlic, Burlington Industries,	Inc. 804-374-8111 (Telephone: 919-859-9987)
3. Contact Person: Sharon Myers, Aquaterra, Inc.	rth Carolina
4. Location of Property s. 211 & 401 Bypass, Raeford, No.	
5. Reason for Monitoring Well(s): Environmental Assessment (ex: nondischarge permit requirements, s	suspected contamination, environmental assessment, etc.)
the which the monitoring well/s) is needed:	dye pond
(ex: nondischarge facility, waste disposal	Site, latelin, discognization
7. Type of contamination being monitored (if applicable): Organi (ex: nutrients, organics, heavy metals, etc.	- 1
8. Are any existing recovery wells associated with the monitoring we	ell(s)?No If yes, how many?
	overy Well Construction Permit No
9. Distance to a known waste or pollution source:100feet	
10. Are any water supply wells located less than 500 feet from the p	proposed monitoring wells? No
10. Are any water supply wells located local supply wells located located local supply wells located located local supply wells located local supply wells located local supply wells located local supply wells located located located local supply wells located	If yes, give distance:feet
11. Well Driller: Carolina Drillers	· ·
12. Registration #:	_
13. Driller's Address: Wilmington, NC 28404	
PROPOSED MONITORING WELL C	CONSTRUCTION INFORMATION
1. Total Number of Wells to be constructed:; (A	
(B) Number to be completed in unconsolidated material?	FOR OFFICE USE ONLY
2. Estimated depth of well(s): 14 feet	PERMITTED ACTIVITY
3. Gravel or sand pack interval (if appropriate) From3 feet To14 feet	U.S.T. LEAK DETECTION GROUNDWATER QUALITY STANDARDS VIOLATIONS SUSPECTED FROM UNPERMITTED
	ACTIVITIES NOTICE OF NON-COMPLIANCE AT
4. Type of casing used: PVC (ex: PVC, stainless steel, galvanized steel, etc.)	LINDEDIATED EACHTIES
5. Diameter of casing: 2 inches	INCIDENT #
J. Dianete of coming.	HAVIDEITI II

6. Thickness of casing: 0.19 inches How will the well(s) be secured? water tight lockable cap and manhole cover Estimated beginning construction date: December 16, 1992 9. Estimated completion date: December 17, 1992 ADDITIONAL INFORMATION 1. ATTACH A SITE MAP SHOWING THE LOCATIONS OF THE FOLLOWING: 1 - PROPOSED MONITORING WELL(S) 2 - ALL EXISTING MONITORING AND RECOVERY WELLS OR TEST BORINGS WITH THE PROPERTY BOUNDARY 3 - ALL WATER SUPPLY WELLS WITHIN 500 FEET OF THE WASTE SOURCES 4 - AT LEAST TWO REFERENCE POINTS (NUMBERED ROADS, INTERSECTIONS, STREAMS, ETC.) PROVIDE A WELL CONSTRUCTION DIAGRAM OF EACH WELL SHOWING DIAMETER, ESTIMATED DEPTH, SCREEN INTERVALS, SAND/GRAVEL PACKS, TYPE OF CASING MATERIAL, CASING WALL THICKNESS, WELL HEAD COMPLE-TION DETAILS, ETC.) The Applicant hereby agrees the proposed well(s) will be constructed in accordance with approved specifications and conditions of the Well Construction Permit as regulated under the Well Construction Standards (Title 15A North Carolina Administrative Code, Subchapter 2C) and accepts full responsibility for compliance with these rules. Signature of Applicant or Agent Project Manager, Aquaterra, Inc. if the property is owned by someone other than the applicant, the property cwner hereby consents to allow the applicant to construct monitoring wells as outlined in this application and that it shall be the responsibility of the applicant to ensure that these monitoring wells conform to the Well Construction Standards (Title 15A North Carolina Administrative Code, Subchapter 2C). Signature of Property Owner (if different from applicant)



PROJECT:

BURLINGTON INDUSTRIES RAEFORD, NORTH CAROLINA

TITLE:

MONITOR WELL LOCATION MAP

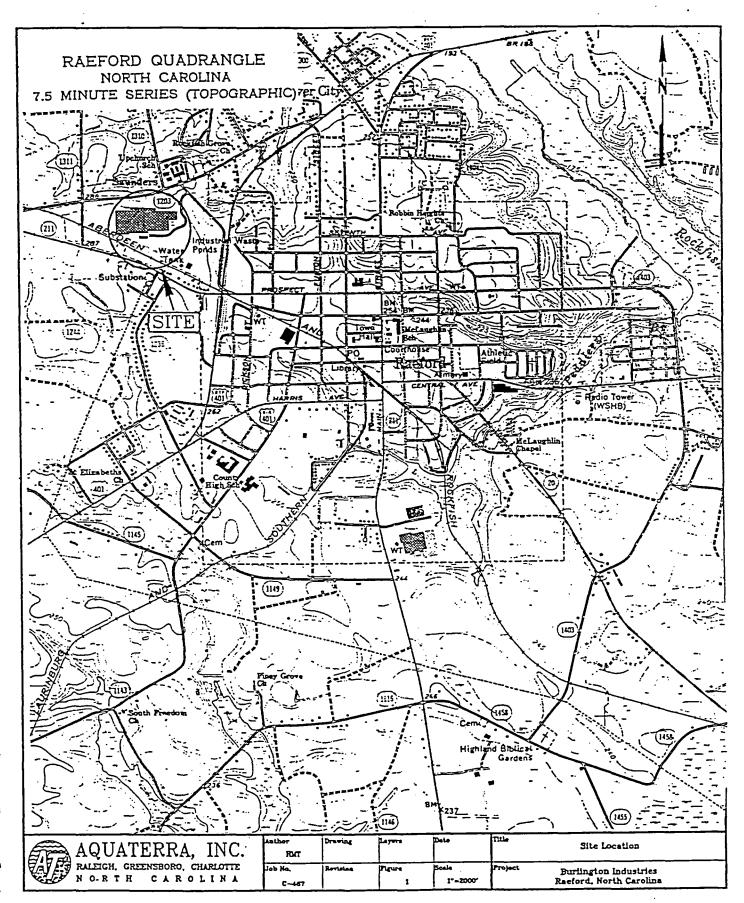
JOD: 167C

DRYAING:

FIGURE: 3

SCALE: 1"=400'

AQUATERRA, INC.
RALEIGH, GREENSBORO, CHARLOTTE
NORTH CAROLINA

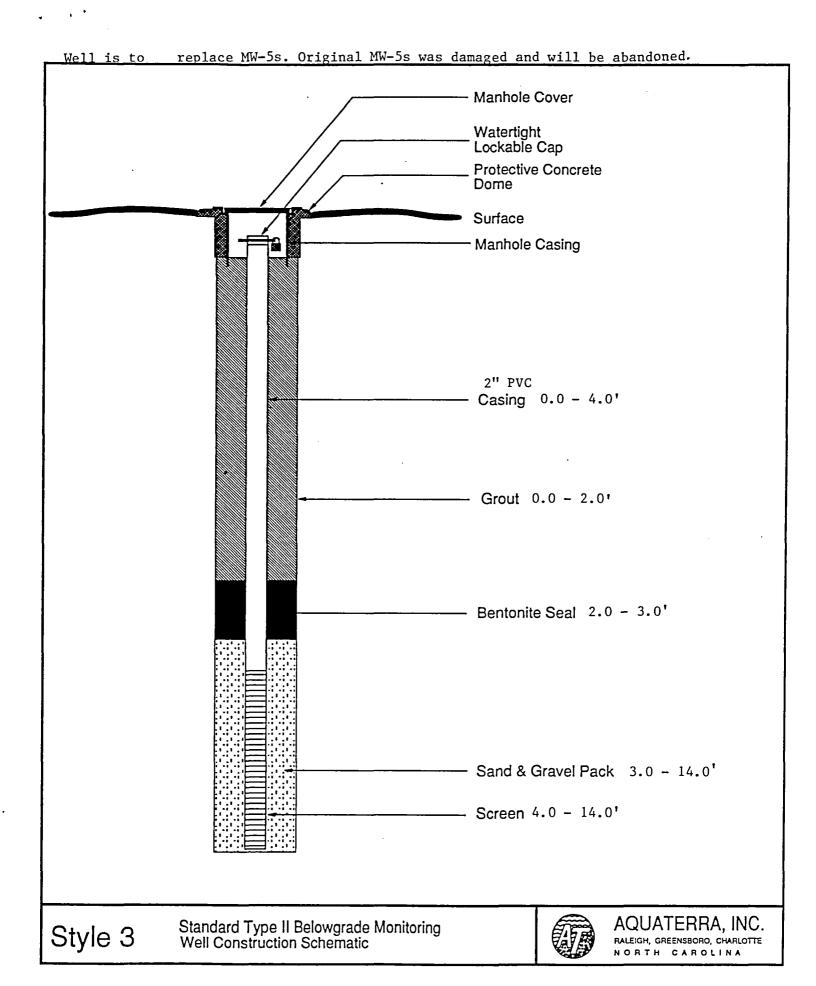


j.73 (!

1 . ----1 .

-1.1

4



North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

WELL CONSTRUCTION RECORD

WELL CONSTRUCTION RECORD	Header Ent	GM-LEnt V
DRILLING CONTRACTOR: Groundwater Protection Inc.	TE WELL CONSTRUCTION	
		WR-0069 JUL 22 1992
WELL LOCATION: (Show sketch of the location below) Nearest Town: Raeford, NC County: Hol	ke	ENV. MANAGEMEN FAYETTEVILLE REG. O
(Road, Community, or Subdivision and Lot No.)	DEPTH	DRILLING LOG
Durlington Industries	From To	Formation Description
ADDRESS Exec. Offices, P.O. Box 788	0.0' 3.0'	(Fill) Red Clay
(Street or Route No.)	3.0' 7.0'	Brn Sand
Clarksville VA 23927	7.0' 18.0'	Org Clay Sand
City or Town State Zip Code	18.0' 25.0'	Org Sand
3. DATE DRILLED 7-9-92 USE OF WELL Recovery	25.0' 35.0'	Org Clay
4. TOTAL DEPTH		
5. CUTTINGS COLLECTED YES NO X 6. DOES WELL REPLACE EXISTING WELL? YES NO X		25/25/11
ET		24/17 FEET 10)
7. STATIC WATER LEVEL Below Top of Casing11. (Use "+" if Above Top of Casing)	27	in 12
8. TOP OF CASING IS FT. Above Land Surface*	(G)	7 1992
* Casing Terminated at/or below land surface is illegal unless a variance is issued	(C)	OINDWATER SECTION OUNDWATER SECTION RALEIGH, NC
in accordance with 15A NCAC 2C .0118 9. YIELD (gpm): NA METHOD OF TEST NA	107	MATER NO
10. WATER ZONES (depth): NA		JIMDAN CICHA
10. WATER ZONES (deptil).	Ch	OINDWATER SECTION
11. CHLORINATION: Type NA Amount NA	If additional space is no	eeded use back of form
12. CASING:		www.
	_	ON SKETCH_
Wall Thickness Depth Diameter or Weight/Ft. Material	(Show direction and distance	ce from at least two State
From 0.0 To 5.0 Ft. 2.0" Sch.40 PVC	Roads, or other map re	eference points)
From To Ft		
FromTo Ft		
13. GROUT:		BurlingIa
Depth Material Method		
From 1.5 To 2.0 Ft. Portland Cement Pour	He	vy 211 E
From ToFt	-	0
14. SCREEN:		
Depth Diameter Slot Size Material		0
From 5.0 To 35.0 Ft 2.0 in010 in. PVC	-	
From To Ft in in	_	A Va
From To Ft in in	_	S Da
15. SAND/GRAVEL PACK:		
Depth Size Material		
From 3.0 To 35.0 Ft. 20-60 Fine Silica Sand	_	
From To Ft	- 0	
16. REMARKS: RW-1, Bentonite pellets from 2.0 to	3.0 ft.	
		AC OC MELL
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN	ACCORDANCE WITH 15A NO	THE WELL OWNER.
CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECO	NO TIMO DELLA PROVIDED TO	

FOR OFFICE USE ONLY 3

QUAD. NO.

Minor Basin

SIGNATURE OF CONTRACTOR OR AGENT
Submit original to Division of Environmental Management and copy to well owner.

DRTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-5083 WELL CONSTRUCTION RECORD	MENT	Ouad. No Lat Minor Basin _ Basin Code _	Serial No. Pc GW-1 Ent.
ILLING CONTRACTOR Carolina Drilling ILLER REGISTRATION NUMBER 728	STATE PERMI	WELL CONST	
React Community, or Subdivision and Lot No.) WNER	County: _ Depth From	Hoke To	DRILLING LOG Formation Description
Clarksville VA 23927 City or Town State Zip Code ATE DRILLED 11-7-90 USE OF WELL MONITORING OTAL DEPTH 18.0 CUTTINGS COLLECTED Yes No OES WELL REPLACE EXISTING WELL? Yes No TATIC WATER LEVEL: 5.10 FT. above TOP OF CASING. TOP OF CASING IS 0 FT. ABOVE LAND SURFACE. WELD (gpm): N/A METHOD OF TEST N/A ATER ZONES (depth): N/A			See Attachment A PEB 6 1991 ENV. MANAGEMENT FAYETTEVILLE REG. OFFICE
HLORINATION: Type None Amount	lf a	dditional space	is needed use back of form.
Depth Diameter Wall Thickness or Weight/Ft. Material From Surface 3.0 Ft. 2" Sch.40 PVC From To Ft. From To Ft. From To Ft. Ft. From To Ft. Ft. Ft. From To Ft.	(Show dire	LOCA	ATION SKETCH nce from at least two State Roads,
Depth Material Method From Surface 0 1.5 Ft. Portland #1 Pour From To Ft		See Atta	achment B
Depth Diameter Slot Size Material		Cherry KW	SECTION NO

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT



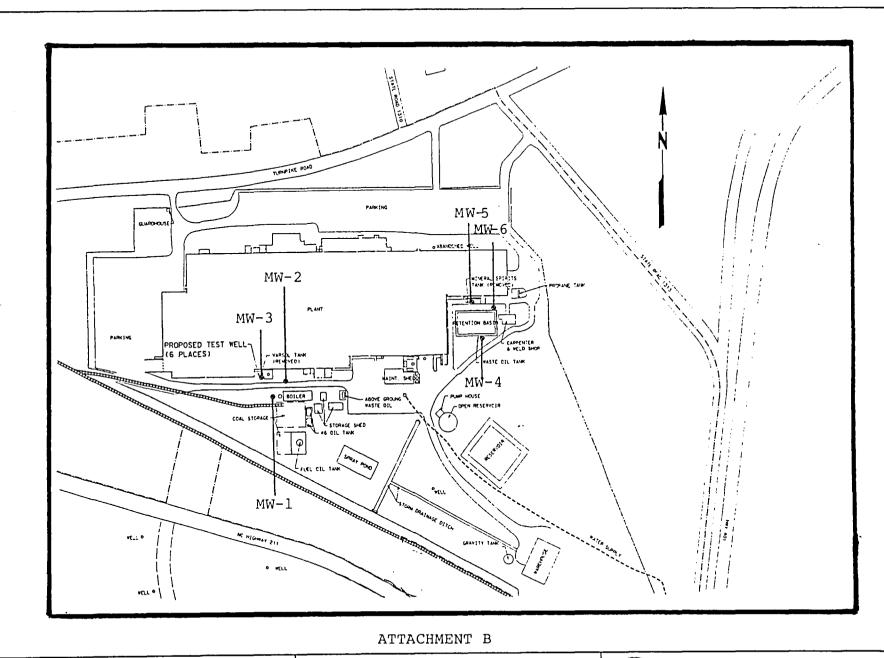
ATTACHMENT A

MW-

Subsurface Drill Log

_	MM-T	_				
th	Surface Elevation	SAMPLES	4PLES	OVA Resu	lts (ppm)	Remarks
Depth (Feet)	SOIL/MATERIAL DESCRIPTION	SAN	SPT. SPOON	CUTTINGS	•	
	A. See Below				No solvent odor	
	Brick red silty clay (ML) Light brown to tan silty clay		BDL		No solvent odor spoon 3.5'-5.0' Blows 3-4-5	
	(ML)	- - - - -			No solvent odor	
10-	Light gray to cream white sandy silty clay (CL)	-	BDL		Spoon 9.0'-10.5 Blows 3-1-1 Wet soil cuttings @ approximately 10.0' below grade	
- 15 -	Boring terminated @ 18.0' below grade in light gray to cream	-				
25	white sandy silty clay (CL)					
	A. Grass, grass roots, dark brown sandy clayey silt (OL BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds					

Drilling & S	ampling Meets ASTM D-1586 & ASTM D-15	87	Pagel ofl
Supervisor	Steven M. Burrows	Location _	BI - Raeford, NC
Rig Type		Date Drilled -	11-7-90
Weather		Job Number -	



PROJECT:

BURLINGTON INDUSTRIES RAEFORD, NORTH CAROLINA

TITLE:

MONITOR WELL LOCATION MAP

JOB: 467C

DRAWING:

FIGURE: S

SCALE: 1"=400' AQUATERRA, INC.

RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA

IORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-5083

WELL CONSTRUCTION RECORD

1			OR OFFICE USE ONLY
7537	Quad.	No	Serial No. /18600
	Lat		Long Pc
			GW-1 Ent
	пеасе		GW-1 Ent.
ATE	WELL NUMB	CONSTRU	UCTION -0064-WM-0060
ty:	Hol	ke	
Depth			DRILLING LOG
	То		Formation Description
		S	ee Attachment A
;			
			<u> </u>
		-	
		_	
If ac	dditional	space is	needed use back of form.
II ac	Julional		
			ON SKETCH e from at least two State Roads, ts)
	See	Attac	hment B
		TO TE	
			FEB 4 1991
		GRO	DUNDWATER SECTION RALEIGH, NC
			Kerri

and cany to well awner.

RILLING CONTRACTOR Carolina Drilling	STATE WELL O	CONSTRUCTION	
RILLER REGISTRATION NUMBER 728	PERMIT NUMBER: 46-0064-WM-0060		
WELL LOCATION: (Show sketch of the location below) MW-2			
Nearest Town: Raeford	County: Hok	e	
State Highways 401 and 211	Depth	DRILLING LOG	
(Road, Community, or Subdivision and Lot No.)	From To	Formation Description	
OWNER Burlington Industries			
ADDRESS Post Office Box 788 (Street or Route No.)			
Clarksville VA 23927			
City or Town State Zip Code		See Attachment A	
DATE DRILLED 11-7-90 USE OF WELL Monitoring			
TOTAL DEPTH 15.0 CUTTINGS COLLECTED Yes No			
DOES WELL REPLACE EXISTING WELL? Yes No		· · · · · · · · · · · · · · · · · · ·	
STATIC WATER LEVEL: 5.99 FT. above TOP OF CASING,			
TOP OF CASING IS FT. ABOVE LAND SURFACE.	Para Pra		
YIELD (gpm): N/A METHOD OF TEST N/A			
WATER ZONES (depth): N/A			
THE ZONES (COPIN).			
CHLORINATION: Type None Amount			
CASING:			
Wall Thickness Depth Diameter or Weight/Ft. Material	II additional	space is needed use back of form.	
From SurfaceTo 3.65Ft. 2" Sch.40 PVC		LOCATION SKETCH	
From To Ft (0.19")	or other map refere	d distance from at least two State Road ence points)	
From ToFt			
GROUT: Depth Material Method			
From Surface To 1.5 Ft. Portland #1 Pour	Coo	Attachment D	
From To Ft	See	Attachment B	
		7.00	
SCREEN:			
Depth Diameter Slot Size Material		The state of the s	
From 3.65 To 13.65Ft. 2 in. 0.01Qn. PVC			
From To Ft in in		FEB 4 1991	
From To Ft in in		SECTION	
GRAVEL PACK:		FEB & 1991 GROUNDWATER SECTION ONLEIGH, NC	
Depth Size Material		GROUNDWATER NC	
From 2.40 To 1.50Ft. Coarse Sand			
FromToFt			
REMARKS: Well point length = 0.10'			

SIGNATURE OF CONTRACTOR OR AGENT

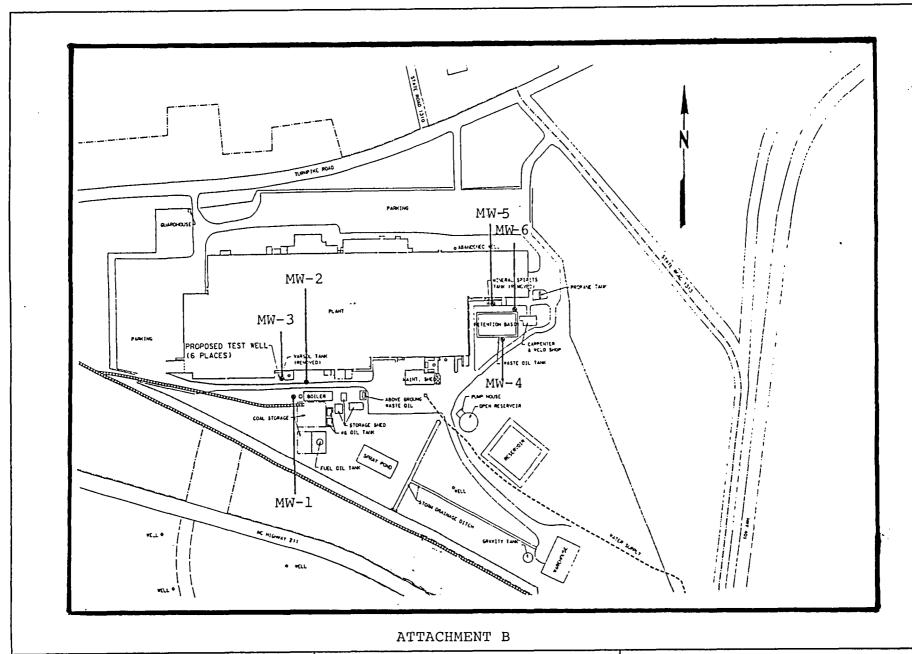


ATTACHMENT A

Subsurface Drill Log

MW-2OVA Results (ppm) Surface Elevation Remarks SOIL/MATERIAL DESCRIPTION SPT. SPOON CUTTINGS See Below no solvent odor Black silty clay (CL) Brick red silty clay (ML) BDL no solvent odor Medium brown silty clay (ML) no solvent odor damp soil cuttinds @ approximately 6.0 below grade no solvent odor _ Flesh to tan and cream white to wet soil cuttings light brown silty sandy clay (CL) @ approximately 10.0' below grade 15 Boring terminated @ 15.0' below grade in flesh to tan and cream white to light brown silty, sandy clay (CL) 20 25 A. Grass and grass roots, dark brown to black sandy, clayey SILT (OL) Black sandy, clayey BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds

Drilling & Sa	ampling Meets ASTM D-1586 & ASTM D-158	37	Page 1 of 1
Supervisor	Steven M. Burrows	Location	BI - Raeford, NC
	Hollow Stem Auger	Date Drilled	11-7-90
Rig Type Weather	Sunny	Job Number	



PROJECT:

įŧ

BURLINGTON INDUSTRIES RAEFORD, NORTH CAROLINA TITLE:

MONITOR WELL LOCATION MAP

JOB: 467C

DRAWING:

FIGURE:

SCALE: 1"=400"

AQUATERRA, INC.

RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA

ORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
F.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-5083

WELL CONSTRUCTION RECORD

FC	DR OFFICE USE ONLY
Ouad. No.	Serial No.//8601
Lat	Long Pc
Minor Basin	
Basin Code	
Header Ent	GW-1 Ent

ILLING CONTRACTOR Carolina Drilling ILLER REGISTRATION NUMBER 728	STATE WELL CONSTRUCTION PERMIT NUMBER: 46-0064-WM-0060		
TECH NEGOTIATION NOME TO	——————————————————————————————————————		
VELL LOCATION: (Show sketch of the location below) MW-3 Nearest Town: Raeford	County: Hok	e	
State Highways 401 and 211	Depth	DRILLING LOG	
Road, Community, or Subdivision and Lot No.)	From To	Formation Description	
DWNER Burlington Industries			
DDRESS Post Office Box 788 (Street or Route No.)	<u> </u>		
Clarksville VA 23927			
City or Town State Zip Code		See Attachment A	
ATE DRILLED 11-7-90 USE OF WELL Monitoring			
OTAL DEPTH 15.0' CUTTINGS COLLECTED Yes No			
OES WELL REPLACE EXISTING WELL? Yes X No			
TATIC WATER LEVEL: 6.47 FT. \square above TOP OF CASING, Solve top of Casing of the solve tand surface.			
IELD (gpm): N/A METHOD OF TEST N/A			
VATER ZONES (depth): N/A			
HLORINATION: Type None Amount			
CASING:			
Wall Thickness Depth Diameter or Weight/Ft. Material	If additional s	space is needed use back of form.	
From Surface 3.0 Ft. 2" Sch.40 PVC		LOCATION SKETCH	
From To Ft (0.19")	(Show direction and or other map refere	distance from at least two State Roads, nce points)	
From To Ft			
GROUT:			
Depth Material Method			
From Surface 1.5 Ft. Portland #1 Pour	Soo	Attachment B	
From To Ft	see .	Accaciment B	
SCREEN:			
Depth Diameter Slot Size Material	5		
From 3.0 To 13.0 Ft. 2 in 0.010 in PVC			
From To Ft in in		€ 1991	
		More	
From To Ft in in		occilion	
GRAVEL PACK:		SECTION	
GRAVEL PACK: Depth Size Material		COLUMN NO	
GRAVEL PACK:		CHARLES NO	
GRAVEL PACK: Depth Size Material		SECTIONS NO	

SIGNATURE OF CONTRACTOR OR AGENT

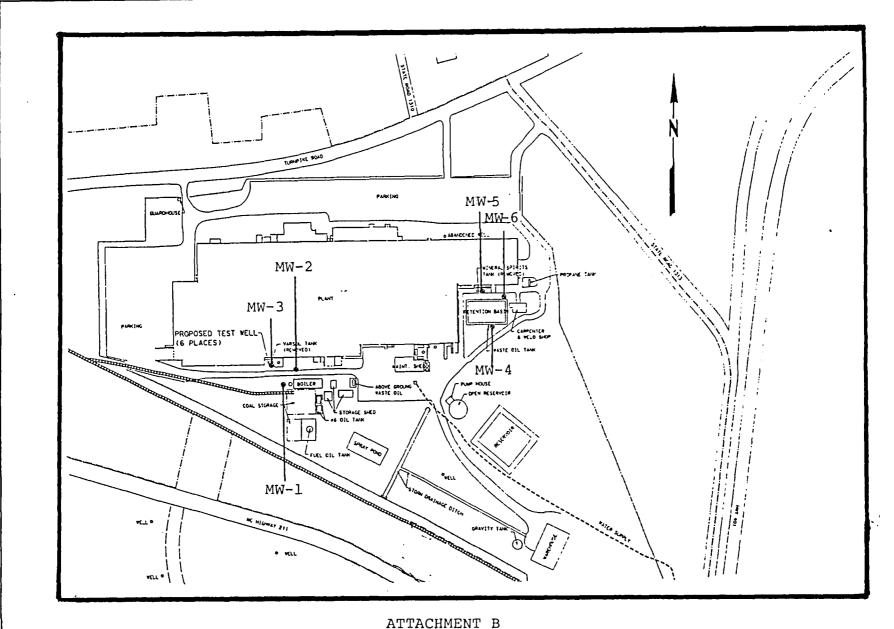


ATTACHMENT A

Subsurface Drill Log

460	MW-3				21111 208
th et)	Surface Elevation SOIL/MATERIAL DESCRIPTION	(PLES	OVA Resu	lts (ppm)	Remarks
Depth (Feet)	SOIL/ MATERIAL DESCRIPTION	SAP	SPT. SPOON	CUTTINGS	itemat KS
	A. See Below				
-	Brick red silty clay (ML)	- - -			No solvent odor
- 5 -	Light brown to cream white silty clay (CL)	 - -	100+		Faint solvent
	Light brown to medium brown silty clayey sand (CL)				Spoon 5.0'-6.5' Blows 1-1-1
- 10 -	Brick red and light brown silty, sandy, clay (ML)	- - - - -			Moderate solvent odor, waxy
15 -	Boring terminated @ 15.0' below grade in brick red and light brown silty, sandy, clay (ML)	-			
20 -					
- 25	-				
	A. Grass, grass roots, light brown, sandy, clayey, silty (OL) BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds	-	,		

Drilling & S	ampling Meets ASTM D-1586 & ASTM D-158	37	Page 1 of 1
Supervisor	Steven M. Burrows	Location	BI - Raeford, NC
Rig Type		Data Drillad	11-7-90
Weather		Job Number	



PROJECT:

BURLINGTON INDUSTRIES RAEFORD, NORTH CAROLINA TITLE:

MONITOR WELL LOCATION MAP

JOB: 467C

DRAWING:

FIGURE:

SCALE: 1"=400'



AQUATERRA, INC. RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA

DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-5083

WELL CONSTRUCTION RECORD

Quad. No	Serial No. 118602
Lat	
Minor Basin	
Basin Code	
Header Ent	GW-1 Ent

and cany to well awner.

ILLING CONTRACTOR <u>Carolina Drilling</u> ILLER REGISTRATION NUMBER <u>728</u>	STATE WELL CONSTRUCTION PERMIT NUMBER: 46-0064-WM-0060 County: Hoke		
/ELL LOCATION: (Show sketch of the location below) MW-4 learest Town: Raeford			
State Highways 401 and 211 Road, Community, or Subdivision and Lot No.)	Depth	DRILLING LOG	
OWNER Burlington Industries	From To	Formation Description	
DDRESS_Post Office Box 788			
(Street or Route No.) Clarksville VA 23927			
City or Town State Zip Code		See Attachment A	
ATE DRILLED 11-7-90 USE OF WELL Monitoring			
OTAL DEPTH 15.0' CUTTINGS COLLECTED Yes No			
OES WELL REPLACE EXISTING WELL? Tyes X No			
TATIC WATER LEVEL: 5.99 FT. D above TOP OF CASING,	•		
TOP OF CASING IS FT. ABOVE LAND SURFACE.			
TELD (gpm): N/A METHOD OF TEST N/A			
VATER ZONES (depth): N/A			
CHLORINATION: Type None Amount			
CASING:	If additional sp	ace is needed use back of form.	
Wall Thickness Depth Diameter or Weight/Ft. Material		OCATION SKETCH	
From Surface 3.0 Ft. 2" Sch.40 PVC		distance from at least two State Roads,	
From ToFt (<u>0.19"</u>)	or other map reference	ce points)	
From ToFt			
GROUT:			
Depth Material Method			
From SurfaceTo 1.5 FtPortlant #1 Pour	See A	ttachment B	
From To Ft			
SCREEN:			
Depth Diameter Slot Size Material			
From 3.0 To 13.0Ft. 2" in 0.01Qn. PVC			
From To Ft in in			
From To Ft in in		21.9 · 8 · 10.3	
GRAVEL PACK:		PATTAN	
Depth Size Material	G	(Gun	
From 2.5 To 15.0 Ft Coarse Sand		CALT.	
Tom Z.S To IS.V . Coarse Dalla			
From To Ft			

SIGNATURE OF CONTRACTOR OR AGENT



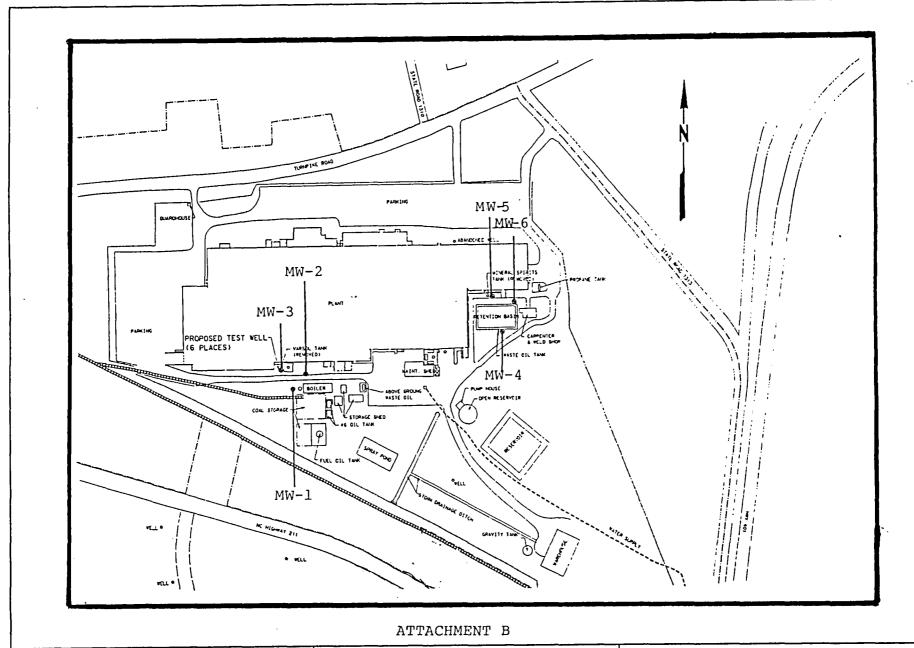
ATTACHMENT A

MW-4

Subsurface Drill Log

	. MW-4		DOGI.		Q
Depth (Feet)	Surface Elevation SOIL/MATERIAL DESCRIPTION	SAMPLES		lts (ppm)	Remarks
9 F		Ŋ	SPT. SPOON	CUTTINGS	•
	A. See Below	-			
	Light brown to tan silty clay (ML)	-	 		No mineral spirit odor
5 -	Light brown to cream white	-	BDL		No mineral spirit odor Spoon 3.5'-5.0'- Blows 1-2-1
•	silty clay (CL)			1	1
	Construction silter sandy along				Damp soil at approximately 7.0'
- 10 - -	Cream white silty, sandy clay (CL)	- - - - -	;	BDL	No mineral spirit odor
15 -	White to light tan-cream silty, sandy, fine to medium grain (SM)	- - - - -			Wet soil at approximately 12.5' No mineral
	Boring terminated @ 15.0' below grade in white to light tan-cream silty sand, fine to medium grain (SM)). 1			spirit odor
20					-
					ļ. ļ.
25		- -			
ŀ		-	.		
	BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds				

Drilling & S	ampling Meets ASTM D-1586 & ASTM D-158	37	Page 1 of 1
Supervisor	Steven M. Burrows	Location .	BI - Raeford, NC
Rig Type	_Hollow Stem Auger	Date Drilled	11-7-90
Weather	Sunny	Job Number	



PROJECT:

BURLINGTON INDUSTRIES RAEFORD, NORTH CAROLINA

TITLE:

MONITOR WELL LOCATION MAP

JOB: 467C

DRAWING:

FIGURE:

SCALE: 1"=400'



AQUATERRA, INC.

RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA ORTH CAHOLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
D:VISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.G. BOX. 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-5083

WELL CONSTRUCTION RECORD

Quad. No.	Serial No. 18603
Lat	Long Pc
Basin Code	
	GW-1 Ent
WELL CONSTRU NUMBER: 46-	CTION -0064-WM-0060
WELL CONSTRU NUMBER: 46-	CTION -0064-WM-0060

ILLING CONTRACTOR Carolina Drilling ILLER REGISTRATION NUMBER 728	STATE WELL CONSTRUCTION PERMIT NUMBER: 46-0064-WM-0060			
VELL LOCATION: (Show sketch of the location below) MW-5 Vearest Town: Raeford	County: <u>Hoke</u>			
State Highways 401 and 211 Road, Community, or Subdivision and Lot No.)	Depth	DRILLING LOG		
OWNER Burlington Industries	From To	Formation Description		
DDRESS Post Office Box 788				
(Street or Route No.)				
Clarksville VA 23927 City or Town State Zip Code		See Attachment A		
DATE DRILLED 11-8-90 USE OF WELL Monitoring				
OTAL DEPTH 14.0' CUTTINGS COLLECTED Yes No				
OCES WELL REPLACE EXISTING WELL? Yes X No	<u> </u>	•		
STATIC WATER LEVEL: 9.04 FT. above TOP OF CASING.				
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE.				
TIELD (gpm): N/A METHOD OF TEST N/A				
VATER ZONES (depth): N/A				
YATEN ZONCO (deplin).				
CHLORINATION: Type None Amount				
CASING:				
Wall Thickness Depth Diameter or Weight/Ft. Material	If additional spa	ace is needed use back of form.		
From SurfaceTo 3.75 Ft. 2" Sch.40 PVC		OCATION SKETCH		
From To Ft (0.19")	(Show direction and do or other map reference	istance from at least two State Roads. e points)		
From To Ft				
GROUT:				
Depth Material Method				
FromSurfaceTo 2.0 Ft. Portland #1 Pour	See At	ttachment B		
From To Ft	bee A	ccacimient b		
SCREEN:				
Depth Diameter Slot Size Material	1			
From 3.75 To 13.75 Ft. 2 in. 0.010n. PVC				
		Si -ra 4 1891		
From To Ft in in		1 CD		
From To Ft in in in in.		POLITICAL		
GRAVEL PACK:		RALLICH, NO		
Depth Size Material				
From 3.0 To 14.0 Ft. Coarse Sand				
From To Ft. O 251				
REMARKS: Well point length = 0.25'		· · ·		

S RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

C. smit original to Division of Environments

nd cray to well awr



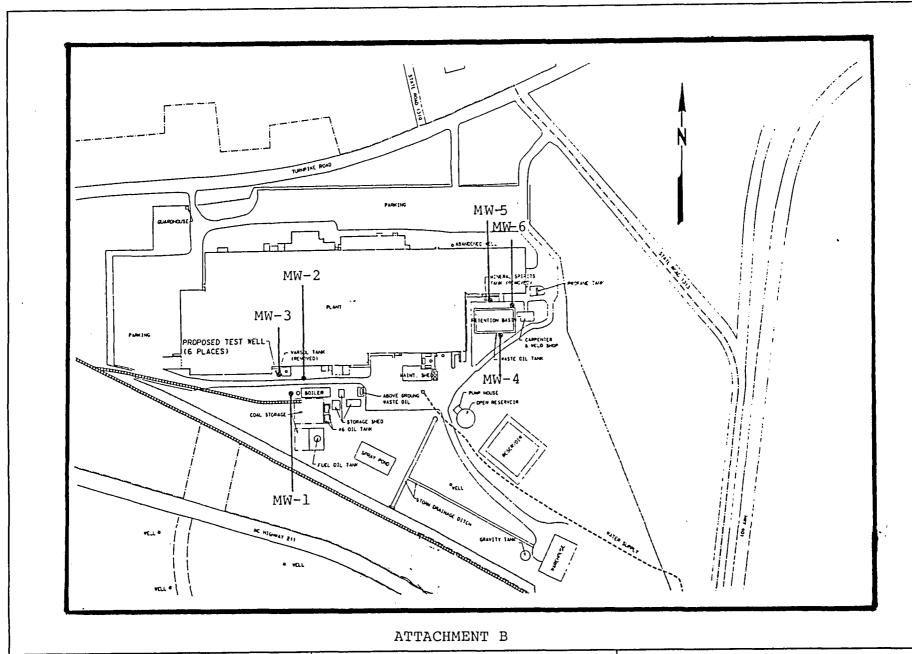
ATTACHMENT A

MW-5

Subsurface Drill Log

ARD		<u> </u>	DD ai	iacc	Dim Log
th th	Surface Elevation SOIL/MATERIAL DESCRIPTION		OVA Resu	lts (ppm)	Remarks
Depth (Feet)	SOIL/MATERIAL DESCRIPTION	SAMPLES	SPT. SPOON	CUTTINGS	remarks
	A. See Below				
	Light to medium brown silty clay (ML)			BDL	No mineral spirit odor
- 5 -		•			-
10-	Tan, sandy, silty clay (CL)	-		BDL	Moist soil cuttings at approximately 8.0' No mineral spirit odor Wet soil cuttings
	Fan clayey, silty fine to medium grain sand (SC)			100+	@ approximately ! 12.0' Faint mineral
15 -	Boring terminated at 14.0' below grade in tan clayey, silty fine to medium grain sand (SC)				spirit odor
20 -		- - -			
- ·			1		
- 25 -		-			
-	A. Asphalt and composite stone				
	BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds	-			

Drilling & Sa	ampling Meets ASTM D-1586 & ASTM I)-1587	Page <u>l</u> of <u>l</u>
Supervisor	Steven M. Burrows	Location -	BI - Raeford, NC
Rig Type	Hollow Stem Auger	Date Drilled -	11-8-90
Weather	Sunny	Job Number -	467C
oddiici		TOD MAINDEN	



PROJECT:

BURLINGTON INDUSTRIES RAEFORD, NORTH CAROLINA

TITLE:

MONITOR WELL LOCATION MAP

JOB: 467C

DRAWING:

FIGURE:

SCALE: 1"=400'



AQUATERRA, INC.

RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-5083

WELL CONSTRUCTION RECORD

(Street or Route No.)

State

_ USE OF WELL Monitoring

■ below

FT. ABOVE LAND SURFACE.

Wall Thickness
Diameter or Weight/Ft. Material

Material

Depth Diameter Slot Size Material

23927

Method

Zip Code

MLLING CONTRACTOR Carolina Drilling

State Highways 401 and 211

OTAL DEPTH 13.5' CUTTINGS COLLECTED X Yes No

STATIC WATER LEVEL: 8.55 FT. Dabove TOP OF CASING.

(IELD (gpm): N/A METHOD OF TEST N/A

From Surface, 3.0 Ft. 2" Sch.40 PVC

From Surfacero 1.5 Ft. Portland #1 Pour

From 3.0 To 13.0 Ft. 2 in 0.01 in PVC

From ______ To____ Ft. _____ in. ____ in. ___

From _____ To ____ Ft.____ (0.19")

VELL LOCATION: (Show sketch of the location below)

Road, Community, or Subdivision and Lot No.)

DDRESS Post Office Box 788

Clarksville

DWNER __Burlington Industries

City or Town

VATER ZONES (depth): N/A

CHLORINATION: Type None Amount

From _____ To ____ Ft._

From _____ To____ Ft.

Depth

OES WELL REPLACE EXISTING WELL? Yes X No

REGISTRATION NUMBER

Vearest Town: Raeford

DATE DRILLED 11-8-90

TOP OF CASING IS_

CASING:

GROUT:

SCREEN:

т	Γ	FOR OFFICE USE ONLY 1101 A
	Quad No.	Serial No. 18609
		Long Pc
	Header Ent	GW-1 Ent
STATE PERMIT	WELL CONS	TRUCTION 46-0064-WM-0060
County: _	Hoke	
Depth		DRILLING LOG
From	To	Formation Description
110111		romation Description
		See Attachment A
:		
•		
- 1 AP 1 AP 1		
	a feet A	
		544
1/ -		is peeded use back of form
11 20	doitional space	e is needed use back of form.
		CATION SKETCH ance from at least two State Roads, points)
	See Att	achment B
		pera com /
		104
		1818
		LES C
		GROUNDWAT
		RALLICH III
		Kureira

From	То	Fl	in	in
GRAVEL PACK:				
	Depth		Size	Material
From 2	.5_To_13.	5 Ft. Co	arse	Sand
From	To	F1		1 <u>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 </u>
REMARKS: W	ell point	lengt	h = 0.2	5'
100 46	יחבטע הכחזוכי	V TUAT TI	UC WELL WA	C COUCTON CTC

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

DATE



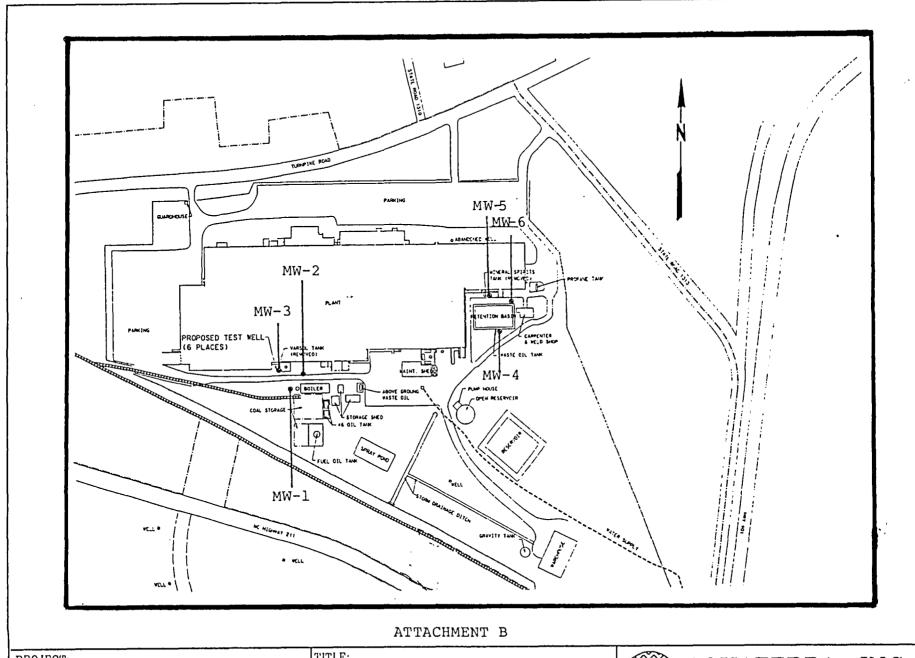
"ATTACHMENT A

MW-6

Subsurface Drill Log

	Surface Elevation	83	OVA Resu	lts (ppm)	
Depth (Feet)	SOIL/MATERIAL DESCRIPTION	SAMPLES	SPT. SPOON	CUTTINGS	Remarks
	A. See Below	-	51 1. 5. 55.	00112100	
	Tan to light brown silty clay (CL)			. BDL	No mineral spirit odor
5 -	Tan to light brown silty, sandy clay (CL)	- - - - - - -		BDL	No mineral spirit odor
10-	Brick red to pink sandy, silty clay (ML)	-	;	BDL	No mineral spirit odor
15 -	Cream white silty clay (CL) B. See Below Boring terminated at 13.5' below grade in cream white silty to fine and medium grain sand (SM)	-			
	A. Grass, grass roots, tan silty clay (OL) B. Cream white silty to fine and medium grain sand (SM)				
-	BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds				

Drilling & Sampling Meets ASTM D-1586 & ASTM D-1587			Page 1 of 1
Supervisor	Steven M. Burrows	Location -	BI - Raeford, NC
-		Date Drilled •	11-8-90
Weather		Job Number -	



PROJECT:

BURLINGTON INDUSTRIES RAEFORD, NORTH CAROLINA TITLE:

MONITOR WELL LOCATION MAP

JOB: 467C

DRAWING:

FIGURE:

SCALE: 1"=400

AQUATERRA, INC.

RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA

NORTH MAROLINA DEPARTMENT OF NATURAL RESOURCES TO DOMINIONTY DEVELOPMENT DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION P.O. BOX 27667 - RALEIGH, N.C. 27611, PHONE (919)733-3221

	FOR OFFICE USE ONLY
Quad. No	8 erial No. 33594
Lat	
Minor Basin _	
Basin Code _	
Header Ent	GW-1 Ent

WELL CONSTRUCTION RECORD	Basin Code
	Header Ent GW-1 Fnt
	√-6d
DRILLING CONTRACTOR <u>Carolina Drilling</u>	STATE WELL COMPANY
DRILLER REGISTRATION NUMBER	STATE WELL CONSTRUCTION PERMIT NUMBER: 46-0064-WM-0060
WELL LOCATION: (Show sketch of the location below)	
Nearest Town: Raeford, North Carolina	a Hoko
401 Bypass & State Highway 210	County: Hoke
(Road, Community, or Subdivision and Lot No.)	Depth DRILLING LOG
2. OWNER <u>Burlington Industries</u> , Inc.	From To Formation Description
ADDRESS Post Office Box 788	Lateral Control of the Control of th
(Street or Route No.) Clarksville, VA 23927	
0: -	Coo N++ochod
3. DATE DRILLED 1-13&14-92 USE OF WELL Monitoring	See Attached
4. TOTAL DEPTH 76.0' CUTTINGS COLLECTED X Yes No	
5. DOES WELL REPLACE EXISTING WELL? Yes No	न विविधित्रका
	(D) (2 (S) (S) (S)
6. STATIC WATER LEVEL: 47.4 FT. Dabove TOP OF CASING, Delow FT. ABOVE LAND SURFACE.	
	JAN 24 1992
7. YIELD (gpm): N/A METHOD OF TEST	GROUNDWATER SECTION
8. WATER ZONES (depth): N/A	RALEIGH, NC
N /2	
9. CHLORINATION: Type N/A Amount	The second secon
10. CASING:	If additional space is needed use back of form.
Depth Diameter or Weight/Ft. Material	
Outer From	(Show direction and distance from at least two State Roads,
Inner From	or other map reference points)
From To Ft	
11. GROUT:	
Depth Material Method	
From 0.0 To 65.0 Ft. Portland #1 Pour	
From To Ft	See Attached
12. SCREEN:	
Depth Diameter Slot Size Material	
From	and and the same
	DECETA E
From To Ft in in in.	100
From To Ft: in	JAN 30 1992
[19] [19] [19] [19] [19] [19] [19] [19]	PARA ALAMA OF ALFA IT
Depth Size Material	ENV. MANAGEMENT

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Material

Sand

-21 - 92

DATE

FAYETTEVILLE REG. OFFICE

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

From 67.0 To 76.0 Ft. Torpedo

Ft. 14 REMARKS: Bentonite seal from: 65.0' to 67.0'

_To__

WELL NUMBER: MW-6d DRILLING METHOD: Hollow Stem Auger

DATE STARTED: 1-13-92 DRILLING FLUIDS: None

DATE FINISHED: 1-14-92 STATIC WATER LEVEL: DATE: GEOLOGIST/ENG Scott Ball OBSERVED BY: George Bridger

REMARKS: Total Depth (TD) Well Boring = 76.0'; TD Wellpoint = 75.20';

Wellpoint Length = 0.20'

O.D. OF BOREHOLE: 9"
O.D. OF CASING: 2.375"

PIPE STICKUP: 0.0'
SURFACE ELEVATION: -GROUT TYPE: Portland #1

* (INNER)

CASING TYPE: PVC Sch. 40
CASING SIZE: ___2"

BOREHOLE DIAMETER: 6"

* (OUTER)

CASING TYPE PVC Sch 40
CASING SIZE: 6"
BOREHOLE DIAMETER: 9"

DEPTH TO BOTTOM
OF OUTER CASING 47.5'
DEPTH TO BOTTOM
OF INNER CASING 70.0'

DEPTH TO TOP OF BENTONITE 65.0'

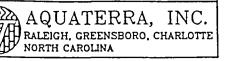
DEPTH TO TOP OF GRAVEL 67.0'

DEPTH TO TOP OF SCREEN 70.0'
DEPTH TO BOTTOM OF SCREEN 75.0'
LENGTH OF SCREEN: 5.0'
SCREEN OPENING SIZE: 0.010"
SCREEN TYPE: PVC Sch. 40
SCREEN SIZE: 2": slotted

Steel Cover LOCKABLE CAP
PROTECTIVE DOME SURFACE
OUTER CASING INNER CASING
GROUT
BENTONITE SEAL
SAND & GRAVEL PACK SCREEN

PROJECT:	•
Burlington	Industries
Raeford, No	rth Carolina

TITLE:			
MW	<u>1-6d We</u>	ell Sc	hematic
JOB:	DRAWING:	FIGURE:	SCALE:
C467		-	





MW-6d

Subsurface Drill Log

	1	<u> </u>	<u> </u>		1 8
4 3	Surface Elevation	SAMPLES	OVA Resu	lts (ppm)	Remarks
Depth (Feet)	SOIL/MATERIAL DESCRIPTION	SAR	SPT. SPOON	CUTTINGS	Remarks
	Topsoil and grass roots		BDL		Spoon: 3.5'-5.0'
-	Orange-tan silty CLAY (ML)				Blows: 8-12-15 No solvent odor
-	Pink-tan silty CLAY (ML)	· -	BDL		Spoon: _8.5'-10.0'
20-					No solvent odor
		- -	·	<u>†</u>	Wet soil cuttings
-	Tan sandy CLAY (CL)			 	@ 12.0' b.g.
40-	•	-	.	Ť.	
-		-		<u> </u>	+
	Brick red CLAY (CH)	-		1	. 1
	Dark tank sandy CLAY (CL)	1	ļ.		
60-		-			
	Yellow sandy CLAY (CL)	}		<u> </u> :	
	Boring terminated @ 76.0' below grade in yellow sandy CLAY (CL)	-			ļ.
80-					
ļ		}	<u> </u>		<u>-</u>
- -			1		
106		-	-		-
- -			<u></u>	<u> </u>	
-	·				
Ŀ	BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds	ŀ	1	1	

Drilling & Sampling Meets ASTM D-1586 & ASTM D-	, 1001	
Cooks D. 11		

Supervisor Scott Ball

Rig Type Hollow Stem Auger

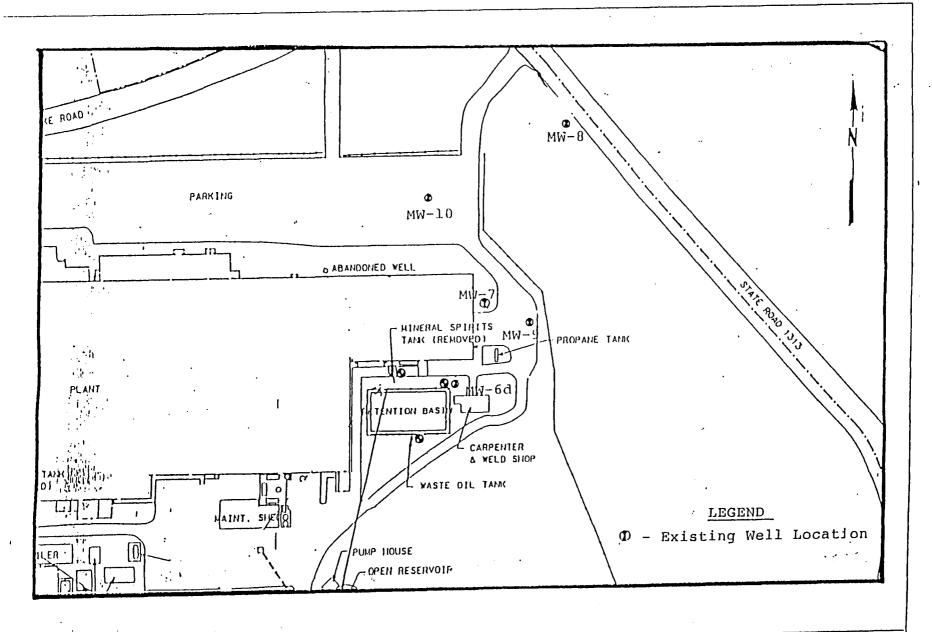
Sunny; 40°F

Page 1 of 1

Location BI-Raeford, North Carolina

Date Drilled 1-13 thru 1-14-92

Job Number C467



•		
PROJECT: Burlington Industries, Inc. Raeford, North Carolina	TITLE: Well Location Map JOB: DRAWING: FIGURE: SCALE: C467 II = 200'	AQUATERRA, INC. RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA

W	ELL	CONSTRUCTION	RECORD

	FOR OFFICE USE ONLY
Quad. No	8erial No. 133593
Lat	Long Pc
Minor Basin _	
Basin Code _	
Header Ent	GW-1 Ent

WELL CONSTRUCTION RECORD	Basin Code
MW	Header Ent. GW-1 Ent.
DRILLING CONTRACTOR <u>Carolina Drilling</u> DRILLER REGISTRATION NUMBER	STATE WELL CONSTRUCTION PERMIT NUMBER: 46-0064-WM-0060
1. WELL LOCATION: (Show sketch of the location below) Nearest Town: Raeford, North Carolina 401 Bypass & State Highway 210 (Road, Community, or Subdivision and Lot No.) 2. OWNER Burlington Industries, Inc. ADDRESS Post Office Box 788 Clarksville, VA 23927 City or Town State Zip Code 3. DATE DRILLED 1-14-92 USE OF WELL Monitoring 4. TOTAL DEPTH 28.5' CUTTINGS COLLECTED Yes No 5. DOES WELL REPLACE EXISTING WELL? Yes No 6. STATIC WATER LEVEL: 8.92 FT. Dabove TOP OF CASING. TOP OF CASING IS 0.0 FT. ABOVE LAND SURFACE. 7. YIELD (gpm): N/A METHOD OF TEST	Depth DRILLING LOG From To Formation Description See Attached JAN 24 1992 GROUNDWATER SECTION
8. WATER ZONES (depth): N/A	RALEIGH, NC
9. CHLORINATION: Type N/A Amount	the a married of these strength angularity by make a second give
Depth Diameter Or Weight/Ft. Material	If additional space is needed use back of form. LOCATION SKETCH (Show direction and distance from at least two State Roads, or other map reference points)
11. GROUT: Depth Material Method From 0.0 To 7.0 Ft. Portland #1 Pour From To Ft. Ft. 12. SCREEN:	See Attached
Depth Diameter Slot Size Material	DECEIVED JAN 80 1992 ENV. MANAGEMENT FAYETTEVILLE REG. OFFICE

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

7.0' to 8.0'

mars SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

__ To__ 14 REMARKS: Bentonite seal from:

STANDARD SUB-GRADE 2" MONITORING WELL CONSTRUCTION SCHEMATIC

WELL NUMBER: MW-8

DRILLING METHOD: Hollow Stem Auger

DATE STARTED: 1-14-92

DATE FINISHED: 1-14-92

GEOLOGIST/ENG Scott Ball

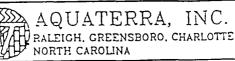
REMARKS: Total Depth (TD) Well Boring = 28.5'; TD Wellpoint = 20.2'

Wellpoint Length = 0.20'

O.D. OF BOREHOLE: 8" - MANHOLE COVER O.D. OF CASING: 2.375" WATER TIGHT LOCKABLE CAP PIPE STICKUP: 0.0' PROTECTIVE. CONCRETE SURFACE ELEVATION:_____ DOME SURFACE GROUT TYPE: Portland #1 CASING TYPE:PVC Sch. 40 CASING SIZE: _2" _ DEPTH TO BOTTOM OF CASING 10.0' - 2" PVC CASING DEPTH TO TOP OF BENTONITE 7.0' DEPTH TO TOP OF GRAVEL ____8.0' - GROUT DEPTH TO TOP OF SCREEN ______10.0' DEPTH TO BOTTOM OF SCREEN __20.0' - BENTONITE LENGTH OF SCREEN: 10 0' SCREEN OPENING SIZE: 0.010" SCREEN TYPE: PVC Sch. 40 SCREEN SIZE: 2"; Slotted - SAND PACK -SCREEN · 2" PVC

ļ	PROJECT:					
	Burlingto	on	Indi	ustries	5,	Inc
1	Raeford,	No	orth	Carol	ina	

TITLE: MW-	·8 W <u>e</u>	ll Sche	matic
JOB:	DRAWING:	FIGURE:	SCALE:
LC467		1	1 11 - 11

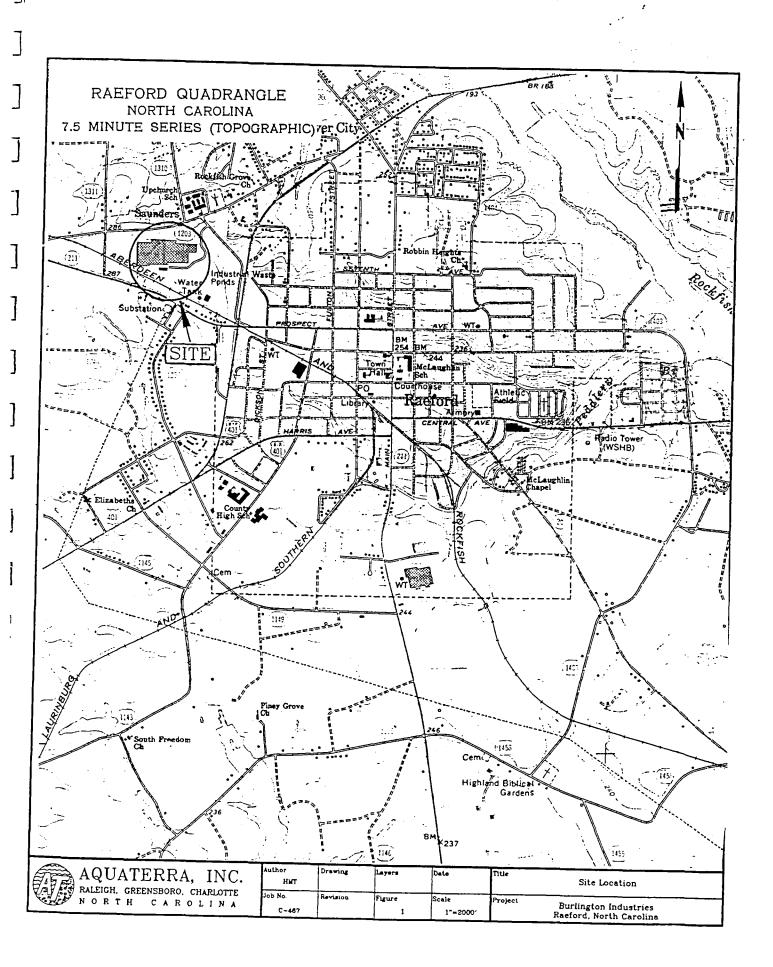


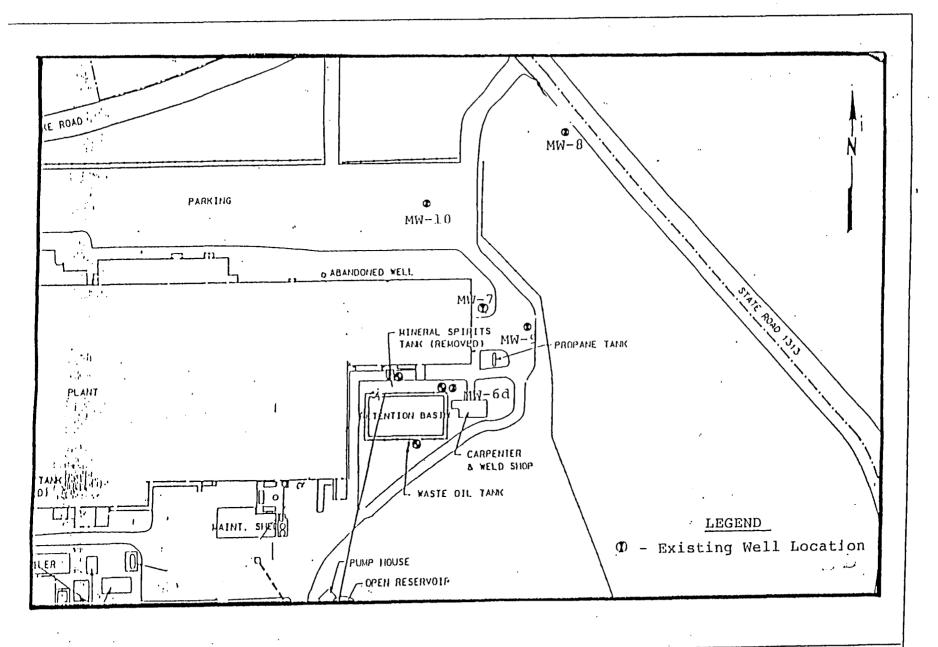


Subsurface Drill Log

	I-IM-0				1
ب ب (۲)	Surface Elevation	SAMPLES	OVA Results (ppm)		Remarks
Depth (Feet)	SOIL/MATERIAL DESCRIPTION	(VS	SPT. SPOON	CUTTINGS	TCHICH KS
	Grass, grass roots, and topsoil	<u> </u>			
-	Dark brown sandy CLAY (ML)		BDL -		Spoon: 3.5'-5.0' Blows: 2-3-4 No solvent odor
		-	 -		-
- 5 -		-		<u> </u>	=
-	Tan silty CLAY (ML)	ŀ		<u>.</u>	Spoon: 8.5'-10.0'
-			BDL	<u> </u> -	Blows: 3-5-9 No solvent odor
10-		 - -			_
15 -	Yellow sandy CLAY (ML)	-	BDL		Spoon: 13.5'-15.0' Blows: 2-3-3 No solvent odor
	Orange sand CLAY (ML)				
20 -					-
		-	+		1
]
1.	Yellow sandy CLAY (ML)				+
25 -		ŀ			-
		-			-
-	Boring terminated @ 28.5' below grade in yellow sandy CLAY (ML)	-	BDL-Below total volatil	OVA detectived organ	etion limit of 0.01 ppm nic compounds
L	11			<u>'</u>	<u>' </u>

Drilling & S	Sampling Meets ASTM D-1586 & ASTM D-158	37	Page $\frac{1}{}$ of $\frac{1}{}$
Supervisor	Scott Ball	Location	BI - Raeford, North Carolina
Rig Type		Data Drilled	1-14-92
Weather	_	Job Number	





ROJECT:

Burlington Industries, Inc. Raeford, North Carolina

TTTLE: Well Location Map FIGURE: SCALE: DRAYING: JOH: 1'' = 200'C467



AQUATERRA, INC. RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919)733-3221

VA/ELI	COMOTRICATION	DE00
AAETT	CONSTRUCTION	RECORD

	FOR OFFICE USE ONLY
Quad. No	8'erial No. 133596
Lat	Long Pc
Minor Basin _	
Basin Code _	
Header Ent	GW-1 Ent

WELL CONSTRUCTION RECORD	Basin Code
MW-	Header Ent GW-1 Ent
DRILLING CONTRACTOR <u>Carolina Drilling</u>	
DRILLER REGISTRATION NUMBER 728	STATE WELL CONSTRUCTION PERMIT NUMBER: 46-0064-WM-0060
WELL LOCATION: (Show sketch of the location below)	
Nearest Town: Raeford, North Carolina	County: Hoke
401 Bypass & State Highway 210	
(Road, Community, or Subdivision and Lot No.)	5711221140 200
2. OWNER <u>Burlington Industries</u> , Inc.	From To Formation Description
ADDRESS Post Office Box 788	
Clarksville, VA 23927	
City or Town State Zip Code	See Attached
3. DATE DRILLED 1-15-92 USE OF WELL Monitoring	
4. TOTAL DEPTH 25.0 CUTTINGS COLLECTED X Yes No	
5. DOES WELL REPLACE EXISTING WELL? Yes No	- CORPINED
6. STATIC WATER LEVEL: 12.83 FT. above TOP OF CASING, TOP OF CASING IS 0.0 FT. ABOVE LAND SURFACE.	014022333
	JAN 24 1992
7. YIELD (gpm): N/A METHOD OF TEST	
8. WATER ZONES (depth): N/A	GROUNDWATER SECTION
N/7	RALEIGH, NC
9. CHLORINATION: Type N/A Amount	A Company of Same
C. CASING: Wall Thickness Depth Diameter or Weight/Ft. Material	If additional space is needed use back of form.
From 0.0 To 10.0Ft. 2" Sch.40 PVC	LOCATION SKETCH
From To Ft	(Show direction and distance from at least two State Roads,
	or other map reference points)
From To Ft	
Depth Material Method	
From 0.0 To 7.0 Ft. Portland Pour	
From To Ft	See Attached
12. SCREEN:	necuoneu
Depth Diameter Slot Size Material	2382(1)
From 10.0 To 20.0 Ft. 2 in.0.010 in. PVC	ACELVEIII
From To Ft in in	12 C
From To Ft.: in in	JAN 30 1992
13. GRAVEL PACK:	JAN 30 1992 JAN 30 1992 ENV. MANAGEMENT FAYETTEVILLE REG. OFFICE FAYETTEVILLE
Depth Size Material	ENV. MALE REG.
From 8.0 To 25.0Ft.Torpedo Sand	CAYETTEVILLE
FromToFt	X.
A REMARKS Bentonite seal from: 7 0' to 8	01

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

M. Emar SIGNATURE OF CONTRACTOR OR AGENT

1-21-92

DATE Submit original to Division of Environmental Management and copy to well

STANDARD SUB-GRADE 2" MONITORING WELL CONSTRUCTION SCHEMATIC

WELL NUMBER: MW-9

DATE STARTED: 1-15-92

DATE FINISHED: 1-15-92

GEOLOGIST/ENG Scott Ball

REMARKS: Total Depth (TD) Well Boring = 25.0'; TD Wellpoint = 20.2'

Wellpoint Length = 0.2'

O.D. OF BOREHOLE: 8" - MANHOLE COVER O.D. OF CASING: 2.375" WATER TIGHT LOCKABLE CAP PIPE STICKUP: 0.0' PROTECTIVE. CONCRETE SURFACE ELEVATION: _____ DOME SURFACE GROUT TYPE: Portland #1 CASING TYPE:PVC Sch. 40 CASING SIZE: 2" DEPTH TO BOTTOM 10.0' OF CASING - 2" PVC CASING DEPTH TO TOP OF GRAVEL 8.0' - GROUT DEPTH TO TOP OF SCREEN _____10.0' DEPTH TO BOTTOM OF SCREEN 20.0' - BENTONITE LENGTH OF SCREEN: 10 0' SCREEN OPENING SIZE: 0.010" SCREEN TYPE: PVC Sch. 40 SCREEN SIZE: 2": Slotted --- SAND PACK -SCREEN . 2" PVC

PROJECT:
Burlington Industries, Inc
Raeford, North Carolina

TITLE: MW-9 Well Schematic

JOB: DRAWING: FIGURE: SCALE: C467 -- 1'-1'

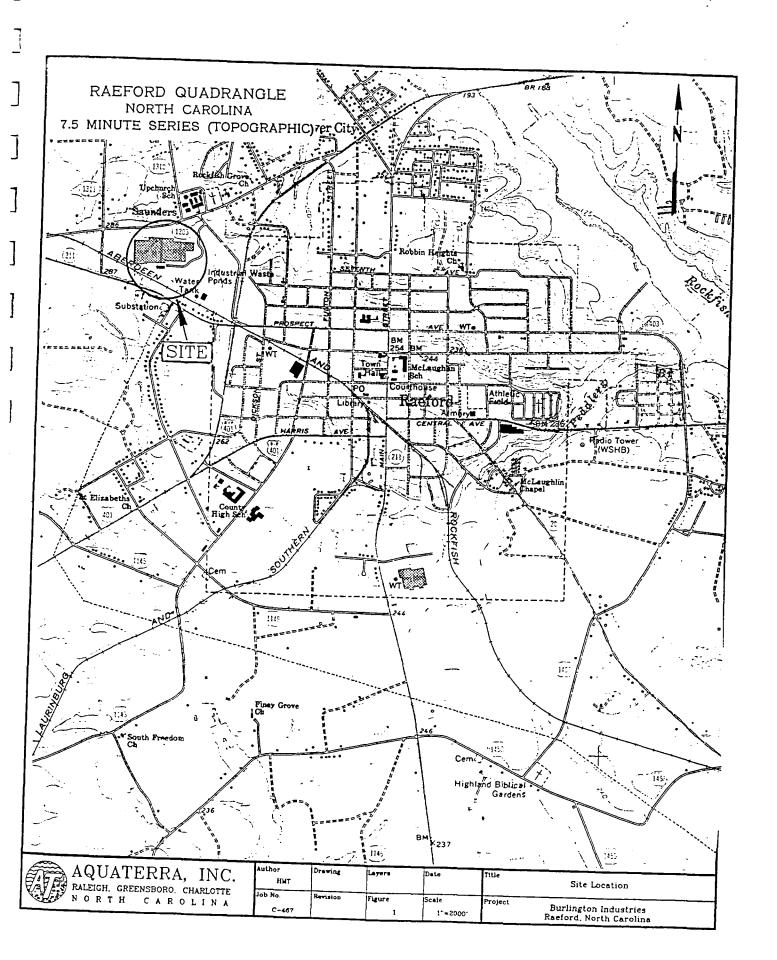


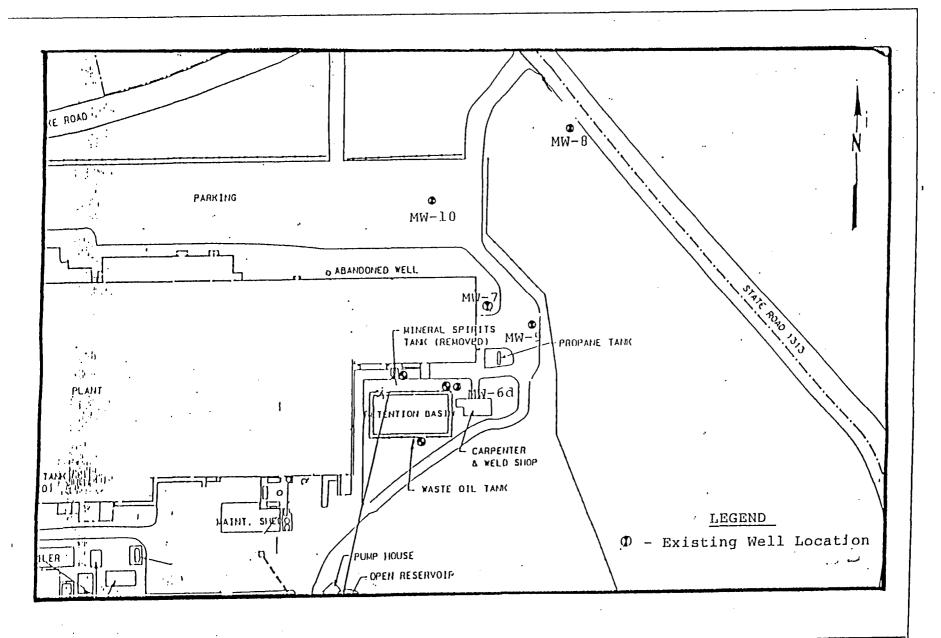


Subsurface Drill Log

						DITTI HOE
ੜ	et)	Surface Elevation SOIL/MATERIAL DESCRIPTION	(PLES	OVA Resu	ilts (ppm)	Remarks
Depth	(Fee	SOIL/ MATERIAL DESCRIPTION	SAN	SPT. SPOON	CUTTINGS	Remarks
		Grass, grass roots and topsoil				
ŀ		Brick red sandy, silty CLAY (ML)		BDL		Spoon: 3.5'-5.0' Blows: 3-4-6 No solvent odor
- 5	5 -	Light brown to dark brown silty CLAY (ML)	-			Spoon: 8.5'-10.0
<u> </u>	4			BDL		Blows: 4-8-5 No solvent odor
– 1	0 -	•	-			
		Light tan, light gray, and pink sandy CLAY (ML)		0.5		Spoon:13.5'-15.0 Blows: 3-6-7 No solvent odor
- 1: - -	5 -					
- 2	0 -					_
- - -		Yellow sandy CLAY (ML)				
- 2	:5 -	Boring terminated @ 25.0' below grade in yellow sandy CLAY (ML)				- -
		BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds				

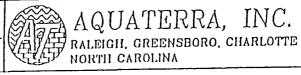
Drilling & S	ampling Meets ASTM D−1586 & ASTM D−158	17		Page 1	of <u>1</u>
Supervisor	Scott Ball	Location	BI	- Raeford,	North Carolina
Rig Type	Hollow Stem Auger			1-15-92	
Weather	Sunny; 35°F	Job Number		C467	





ROJECT:
Burlington Industries, Inc.
Raeford, North Carolina

TTLE:	Well	Location	Мар
JOII; C467	DRAWING:	FIGURE:	SCALE: 1"=200'



NORTH DAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919)733-3221

WELL	CONSTRUCTION	RECORD
------	--------------	--------

	FOR OFFICE USE ONLY
Quad. No	8 erial No. /33595
Lat	Long. Pc
Minor Basin _	
Basin Code _	
Header Ent	GW-1 Ent

DRILLING CONTRACTOR <u>Carolina Drilling</u> DRILLER REGISTRATION NUMBER	STATE WELL CONSTRUCTION PERMIT NUMBER: 46-0064-WM-0060
1. WELL LOCATION: (Show sketch of the location below) Nearest Town: Raeford, North Carolina 401 Bypass & State Highway 210	County: Hoke
(Road, Community, or Subdivision and Lot No.) 2. OWNER <u>Burlington Industries</u> , Inc.	Pepth Depth DRILLING LOG From To Formation Description
ADDRESS Post Office Box 788 (Street or Route No.) Clarksville, VA 23927	
City or Town State Zip Code 3. DATE DRILLED $1-14-92$ USE OF WELL MONITORING 4. TOTAL DEPTH 25.0 CUTTINGS COLLECTED \overline{X} Yes \overline{X} No	See Attached
5. DOES WELL REPLACE EXISTING WELL? Yes No 6. STATIC WATER LEVEL: 11.28 FT F above TOP OF CASING	RECEIRED
TOP OF CASING IS 0.0 FT. ABOVE LAND SURFACE. 7. YIELD (gpm): N/A METHOD OF TEST	GROUNDWATER SECTION
8. WATER ZONES (depth): N/A 9. CHLORINATION: Type N/A Amount	RALLIGH, NV
10. CASING: Wall Thickness Depth Diameter or Weignt/Ft. Material	If additional space is needed use back of form.
From To Ft Sch. 40 PVC From To Ft Ft	LOCATION SKETCH (Show direction and distance from at least two State Roads, or other map reference points)
11. GROUT: Depth Material Method From 0.0 To 7.0 Ft. Portland Pour	
From To Ft 12. SCREEN:	See Attached
Depth Diameter Slot Size Material	
From 10.0 To 70.0 Ft in in 10.0.010 in. PVC From 70	DECES V 6
13. GRAVEL PACK: Depth Size Material	ENV. MANAGEMENT FAYETTEVILLE REG. OFFICE
From 8.0 To 25.0 Ft. Torpedo Sand From To Ft. 14. REMARKS: Bentonite seal from: 7.0' to 8	
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED STANDARDS, AND THAT A COPY OF THIS RECORD HAS SCALED	IN ACCORDANCE WITH 15 NO 10 OF WITH CONSTRUCTION

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

STANDARD SUB-GRADE 2" MONITORING WELL CONSTRUCTION SCHEMATIC

WELL NUMBER: MW-10

DATE STARTED: 1-14-92

DATE FINISHED: 1-14-92

GEOLOGIST/ENG Scott Ball

REMARKS: Total Depth (TD) Well Boring = 25.0'; TD Wellpoint = 20.20'

Wellpoint Length = 0.20'

O.D. OF BOREHOLE: 8" MANHOLE COVER O.D. OF CASING: 2.375" WATER TIGHT LOCKABLE CAP PIPE STICKUP: 0.0' PROTECTIVE CONCRETE SURFACE ELEVATION: _____ DOME SURFACE GROUT TYPE: Portland #1 CASING TYPE:PVC Sch. 40 CASING SIZE: 2" DEPTH TO BOTTOM OF CASING __10.0' - 2" PVC CASING DEPTH TO TOP OF GRAVEL 8.0' - GROUT DEPTH TO TOP OF SCREEN 10.0' DEPTH TO BOTTOM OF SCREEN _ 20.0' - BENTONITE LENGTH OF SCREEN: 10.0' SCREEN OPENING SIZE: 0.010" SCREEN TYPE: PVC Sch. 40 SCREEN SIZE: 2"; Slotted - SAND PACK SCREEN . 2" PVC

PROJECT:			
Burlingto	n Indu	ıstries,	Inc
Raeford,	North	Carolina	a

ITLE: MW-1	0 We	ll Sche	matic
јов: С467	DRAWING:	FIGURE:	SCALE:

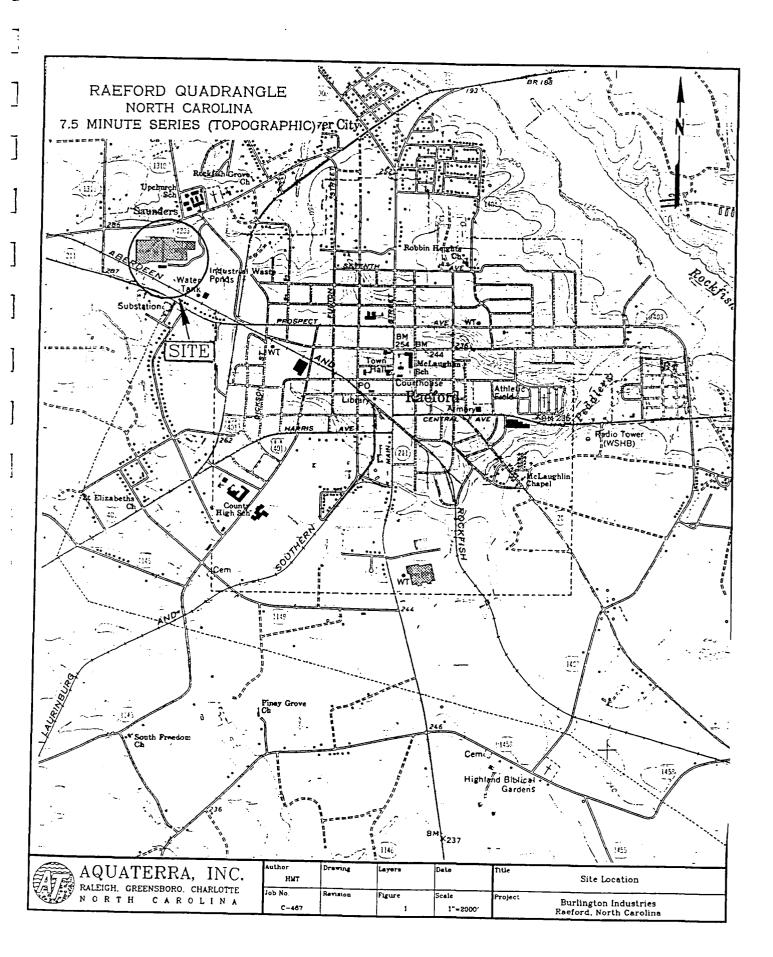


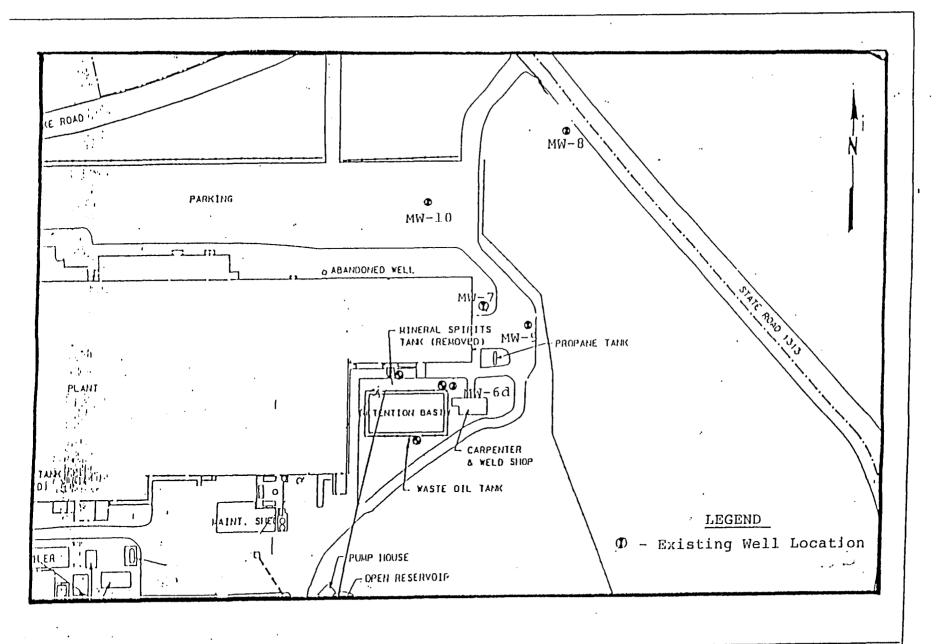


Subsurface Drill Log

ARE	MW-10	$\mathcal{O}_{\mathcal{U}}$	bsul.	race	Drill rog	
th et)	Surface Elevation	SAMPLES	1		i	
Depth (Feet)	SOIL/MATERIAL DESCRIPTION	SAM	SPT. SPOON	CUTTINGS	Remarks	
	Asphalt and composite stone	-				
	Tan to dark brown sandy CLAY (ML)		BDL		Spoon: 3.5'-5.0' Blows: 1-3-3 No solvent odor	
5 -					-	
			BDL		Spoon: 8.5'-10.0' Blows: 4-6-7	
].					No solvent odor	
10-	Tan and pink sandy CLAY (ML)	-			-	
		-				
]_ -	BDL		Spoon: 13.5'-15.0	
- 15 -		-			Blows: 4-4-6 No solvent odor	
- -	Light to medium gray sandy CLAY	-				
20 -	(ML)	-			-	
		-				
2 5 -	Boring terminated @ 25.0' below					
	grade in light to medium gray sandy CLAY (ML)					
-	BDL-Below OVA detection limit of 0.01 ppm total volatilized organic compounds					

Drilling & S	Sampling Meets ASTM D-1586 & ASTM D-15	87	Page <u>1</u>	of <u>1</u>
Supervisor	Scott Ball	Location	BI - Raeford.	North Carolin
Rig Type	Hollow Stem Auger		1-14-92	
	Sunny; 35°F	lob Number		





Raeford, North Carolina

TITLE:	Well I	ocation	Мар
Jon: C467	DRAWING:	FIGURE:	SCALE: l"=200'



AQUATERRA, INC. RALEIGH, GREENSBORO, CHARLOTTE NORTH CAROLINA